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In the claims:

1. (Represented claim 21 in Independent Format) An apparatus for use in an application including at least one of clamping and valving, the apparatus comprising:

a support structure defining an at least substantially enclosed periphery of a support member, the support structure defining first and second inwardly directed opposing support surfaces facing one another, wherein the support structure is a generally I-shaped member; and

actuator means located within the at least substantially enclosed periphery of the support member and operably positionable between the first and second inwardly directed opposing support surfaces for moving the support structure between a rest position and an actuated position in response to an excitation of the actuator means.

2. (Original) The apparatus of claim 1 wherein the actuator means is a piezoelectric device.

3. (Original) The apparatus of claim 2 wherein the support structure is a single piece.

4. (Original) The apparatus of claim 2 wherein the support structure is a mechanically active element of the apparatus.

5. (Original) The apparatus of claim 2 wherein the support structure includes opposing resilient arm portions biased to the rest position.

6. (Original) The apparatus of claim 5 wherein the arm portions are driven from the rest position to the actuated position in response to actuation of the actuator means.

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7. (Original) The apparatus of claim 6 wherein the arm portions are biased to return to the rest position from the actuated position in response to deactuation of the actuator means.

Claims 8 and 9 previously cancelled without prejudice.

10. (Original) The apparatus of claim 2 wherein the actuator means produces a spatial displacement when actuated and the support structure includes a pair of opposing arms disposed relative to the actuator for amplifying the spatial displacement.

11. (Represented Claim 23 in Independent Format) In an apparatus for use in an application including at least one of clamping and valving having a support structure and piezoelectric actuator, the improvement comprising:

the support structure being a single piece of material having shape memory with a high modulus of elasticity and high strength, the support structure defining first and second opposing actuator-support surfaces facing one another and spaced apart from one another, the piezoelectric actuator operably positionable with opposite longitudinal ends engagable with the first and second opposing actuator-support surfaces for driving the support structure between a rest position and an actuated position in response to excitation of the piezoelectric actuator, wherein the support structure is a generally I-shaped member.

12. (Original) The improvement of claim 11 wherein the support structure is a mechanically active element of the apparatus.

13. (Original) The improvement of claim 11 wherein the support structure includes opposing resilient arm portions biased to a rest position.

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14. (Original) The improvement of claim 13 wherein the arm portions are driven from the rest position to an actuated position in response to actuation of the actuator.

15. (Original) The improvement of claim 14 wherein the arm portions are biased to return to the rest position from the actuated position in response to deactuation of the actuator.

Claims 16 and 17 previously cancelled without prejudice.

18. (Original) The improvement of claim 11 wherein the actuator produces a spatial displacement when actuated and the support structure includes a pair of opposing arms disposed relative to the actuator for amplifying the spatial displacement.

19. (Previously Added) An apparatus for use in an application including at least one of clamping and valving, the apparatus comprising:

a generally I-shaped support structure including at least one web defining at least one flex axis with respect to the remaining support structure, the support structure defining first and second opposing support surfaces facing one another on one side of the at least one web and defining at least one rigid arm moveable about the flex axis on an opposite side of the at least one web; and

actuator means operably positionable between the first and second opposing support surfaces for moving the at least one rigid arm of the support structure between a rest position and an actuated position in response to excitation of the actuator means.

20. (Previously Added) The apparatus of claim 19 further comprising:

the at least one web of the support structure including first and second webs connected in one integral piece to at least one arm moveable relative to the remaining support structure about a flex axis when the actuator means is driven,

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wherein one of the webs includes a portion extending with an angled non-perpendicular component to the at least one arm; and

the actuator means positionable between the first and second webs for driving the at least one arm relative to the remaining support structure when the actuator means is driven.

Please cancel claim 21 without prejudice. ~~(Previously Added) The apparatus of claim 1 wherein the support structure is a generally I-shaped member.~~

22. (Represented in Independent Format) ~~The An~~ apparatus of claim 1 ~~further for use in an application including at least one of clamping and valving, the apparatus comprising:~~

a support structure defining an at least substantially enclosed periphery of a support member, the support structure defining first and second inwardly directed opposing support surfaces facing one another, the support structure including first and second webs connected in one integral piece to at least one arm moveable relative to the remaining support structure about a flex axis when the actuator means is driven, wherein one of the webs includes a portion extending with an angled non-perpendicular component to the at least one arm; and

actuator means located within the at least substantially enclosed periphery of the support member and operably positionable between the first and second inwardly directed opposing support surfaces for moving the support structure between a rest position and an actuated position in response to an excitation of the actuator means, the actuator means positionable between the first and second webs for driving the at least one arm relative to the remaining support structure about the flex axis when the actuator means is driven.

Please cancel claim 23 without prejudice. ~~(Previously Added) The improvement of claim 11 wherein the support structure is a generally I-shaped member.~~

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24. (Represented in Independent Format) ~~The improvement of claim~~
~~11 further~~ In an apparatus for use in an application including at least one of clamping
and valving having a support structure and piezoelectric actuator, the improvement
comprising:

the support structure being a single piece of material having shape
memory with a high modulus of elasticity and high strength, the support structure
defining first and second opposing actuator-support surfaces facing one another and
spaced apart from one another, the piezoelectric actuator operably positionable with
opposite longitudinal ends engageable with the first and second opposing actuator-
support surfaces for driving the support structure between a rest position and an
actuated position in response to excitation of the piezoelectric actuator, the support
structure including first and second webs connected in one integral piece to at least
one arm moveable relative to the remaining support structure about a flex axis ~~when~~
~~the piezoelectric actuator is driven~~, wherein one of the webs includes a portion
extending with an angled non-perpendicular component to the at least one arm; and
the piezoelectric actuator positionable between the first and second
webs for driving the at least one arm relative to the remaining support structure about
the flex axis when the piezoelectric actuator is driven.